# THE EUGENICS REVIEW

## Eugenic Aspects of the War.

By Professor Corrado Gini.

In response to the cordial invitation sent me, I have much pleasure in giving to the readers of the Eugenics Review a résumé of the results to date obtained by myself and some colleagues and students of my school in our researches into the relation of the War to Eugenics.

The works in which these results are set forth I have appended in a bibliographical list, and I shall refer thereto in the following notes by means of ordinal numbers corresponding to those of the table.

In order not to trespass on the space of the Review I shall limit myself to a cursory treatment of the more important conclusions.

Anyone wishing to probe more thoroughly into the methods by which these data were collected, or to examine the critical treatment to which they were subjected and the extent to which they can properly be regarded as of eugenic importance should consult directly the documents enumerated, all these points being fully elaborated there.

The results can be given under three headings:

- A. Effects of Military Conscription on Race.
- B. Characteristics of births from conceptions during and after war.
- C. Selective action of War-time Mortality.

### A. Effects of Military Conscription on Race.

The method of conscription followed before the War in Italy allowed a division of the manhood of the country liable for service into three categories: according to whether they had to give (1) full-time service, or (2) a short period only, or (3) had complete exemption.

As a result those who are called upon for full service (1) marry later than other men of the same age at least correspondingly to the years by which the others [(2) (3)] are partially or wholly exempt from service—but they marry more frequently so that their total proportion of unmarried is lower. It would appear that to have completed a term of military service leads to preferential treatment in matrimonial selection. Up to a certain age (which in different samples varies between 25 and 40 years) the mean number of living children is lower for those with complete military service than for their contemporaries who, though liable, have been partially or wholly excused. This is evidently due to the shorter period of marriage. After the age of 40, however (or even earlier) the men of group (1) show a higher average of

living children than (2) and (3); and this is true whether the calculations are based on all men serving or only the married men, or (amongst the married men), only those with offspring.

In spite of later marriage it appears therefore that the conscripted are more prolific as if the selective matrimonial advantage above mentioned allowed them, independently of age, to carry off younger,

stronger or fitter women and hence more fertile.

In regard to the incidence of early mortality (which naturally in this class includes a high number of unmarried men and men with small families owing to the late age of mating and which would therefore tend to counterbalance this reproductive advantage) we have further evidence that we are dealing with the lowest quota of celibates and the most highly prolific marriage group; so that the lead of section (1) is not completely eliminated. This warrants the conclusion that "military service favours (or at least does not diminish) reproductivity in those who undergo it as compared with their co-evals equally fit for arms, but enjoying some form of exemption." The old contention that military conscription exercises a harmful racial influence by reducing the fertility of the physically fit, is therefore shown to be untenable; it even appears of advantageous racial significance. (2).

The Italian data do not furnish the necessary material from which to deduce how far military service exercises a harmful influence by a more general exposure to venereal infection or a wider incidence of venereal disease; the fact brought forward above of the high reproductive capacity in comparison with corresponding ages, also fit for service shows that, this cannot have any very considerable or serious effect. (2). While the above results are, of course, of positive value for Italy alone, from which they are taken, they are of hypothetical interest for any nation in which military service does not differ essen-

tially from the Italian system. (2).

#### B. Character of Births and Conceptions during and after the War.

Infant mortality amonst the belligerents rose only slightly during the War. (3).

In cities in England, France and Germany, and in some Italian cities, as in Rome, no decided increase was shown during the war period. (1). Mortality due to congenital weakness, atrophy, monstrosity, etc., showed nothing abnormal in the cities of Berlin, Dusseldorf, Bremen, Nuuremberg, Wiesbaden, and this not only during the first nine months of the war, when births were due to prior conceptions, but even subsequently. (1). The figures from maternity cliniques in Stuttgart, Rome, Padua and Bologna show the mean of births due to conceptions in the early war-period, not inferior, but actually superior to the immediate pre-war figures and although it subsequently decreased it never dropped sensibly below the pre-war level. After the war there is a fresh increase. (4).

During a considerable part of the war and post war period French and Italian cities show an unusually high proportion of multiple pregnancies. (4). A number of factors may have contributed to these phenomena. Taking into consideration the bad food conditions and the insufficient medical aid known to have been in existence during these

months, they prove war-time conceptions to have been at all events in no way inferior, while they may even be held to have been superior to the normal. (1), (3), (4).

#### C. Selection due to War-time Mortality.

Neither the elementary teachers nor the University students who were killed in the war can be said to have been superior to their colleagues who survived. A supposititious superiority has been deduced for the former from a higher salary in age groups or from age-pluslength-of-service comparison. For the University students it was deduced from the greater number of examinations passed at a given age, or from consideration of examination places. (4), (5).

These results require the corroboration of further research but already they warrant two conclusions: (a) That the relations of war to eugenics are really far more complex, and of a less pernicious effect racially than appeared to authors who formerly treated of the subject. (1). (b) That the influences which war brings to bear on a race, both directly and indirectly, are varied and complex, frequently neutralising each other in effect so that any a priori analysis is difficult, and may easily attribute undue weight to one co-efficient of the problem, and be unable to fore-see the complex resultant. (4) Thus a priori conclusions must necessarily give way to those ascertained by a posteriori analysis of data. This idea guided our research, and the results, if we are not mistaken, are not without importance and make us hope that others will follow with investigations to act as controls of our conclusions and to lead to further advances in the directions outlined.

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